## TOMRA SYSTEMS ASA CAPITAL MARKETS DAY 2013

# TODAY INTO® TOMORROW

### POSITIONING TOMRA TOWARDS MACRO TRENDS

### **THE CHALLENGE:**

### THE OPPORTUNITY:

# **3 billion** more middle-class consumers expected to be in the global economy by 2030

## Up to **\$1.1 trillion**

spent annually on resource subsidies

Making A world worth living for our children!

## \$2.9 trillion of savings in

2030 from capturing the resource productivity potential

## At least \$1 trillion

more investment in the resource system needed each year to meet future resource demands

SOURCE: McKinsey





### THE WORLD POPULATION AND STANDARD OF LIVING IS INCREASING DRAMATICALLY





### WORLD RESOURCES ARE UNDER UNPRECEDENTED PRESSURE

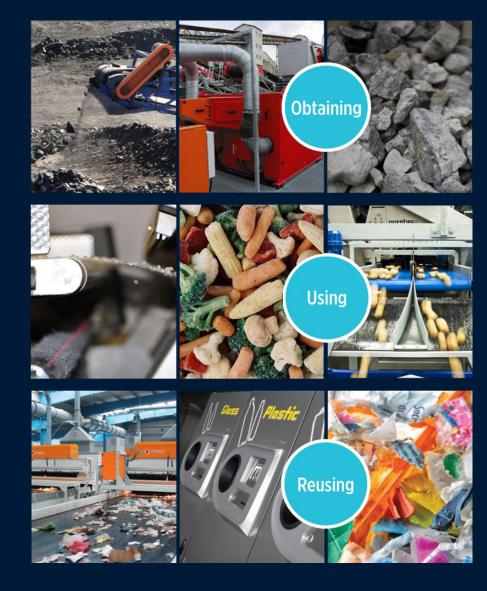




### RESOURCE PRODUCTIVITY MUST INCREASE TO ENSURE SUSTAINABLE DEVELOPMENT



## TOMRA creates sensor-based solutions for optimal resource productivity





# LEADING THE RESOURCE REVOLUTION

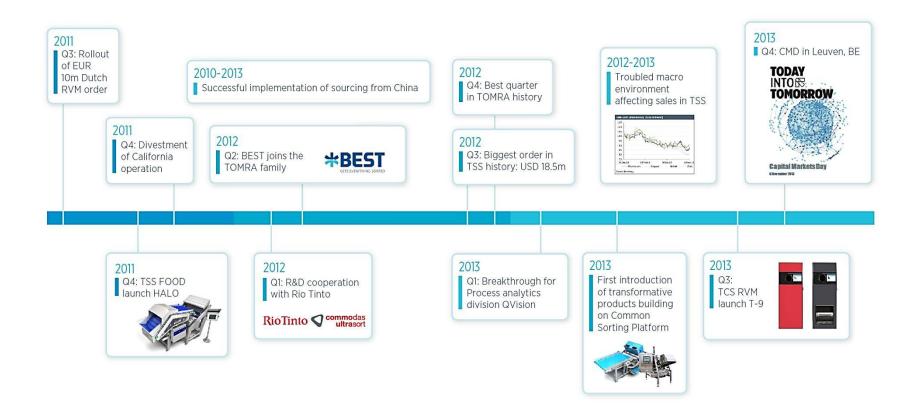


## FROM PURPOSE INTO PROFITS AND PROFITS INTO PROGRESS, TOMRA IS **TRANSFORMING** WHAT IT MEANS TO BE RESOURCEFUL.

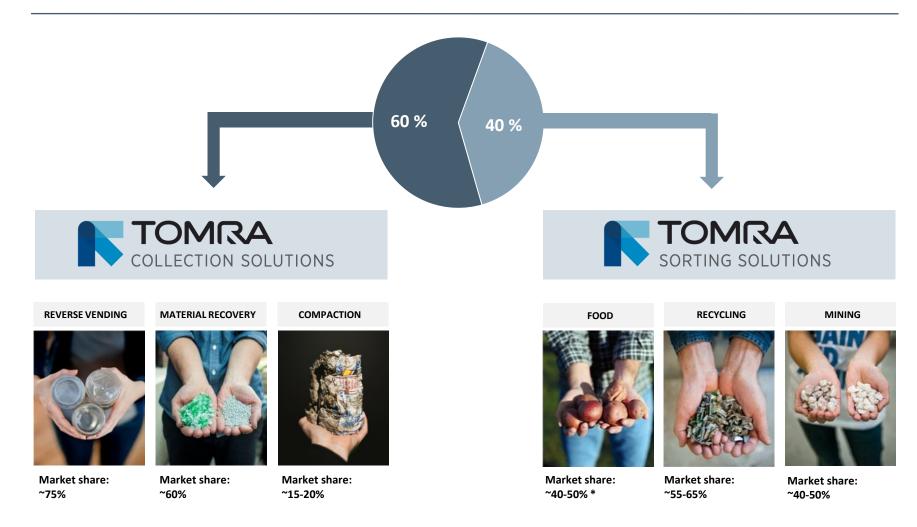


- Our solutions, in use around the globe, helped keep up to 20 millions of tons of CO<sub>2</sub> from being released into the atmosphere in 2012
- 30 bn used beverage containers are captured every year through our reverse vending machines
- Our vertical balers contribute to a daily reduction of 20,000 waste pickups, saving 160,000 liters of fuel consumption
- Our steam peelers process 15 million tons of potatoes per year with a 1% yield improvement over other alternatives
- 715,000 tons of metal are recovered every year by our metalrecycling machines

### 2011-2013: AN EVENTFUL PERIOD



### TOMRA -A MARKET LEADER IN ALL ACTIVE MARKETS...



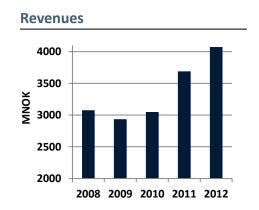
\* In total food (incl. rice and lane sorting): 12-15%

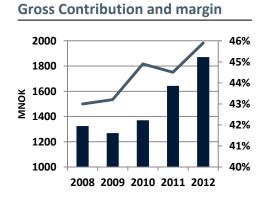


# ...RESULTING IN A SOUND FINANCIAL CONTRIBUTION IN RECENT YEARS...

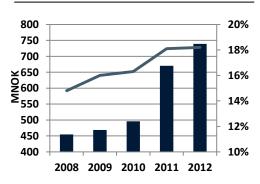
### Through implementing our strategy TOMRA achieved solid results

- Topline and bottom-line increase over the period
- Stable and solid cash generation
- Strong balance sheet
- Redistribution to shareholders: 40-60% of EPS
- Well positioned with a good reputation in growing market
- A long term perspective on our business





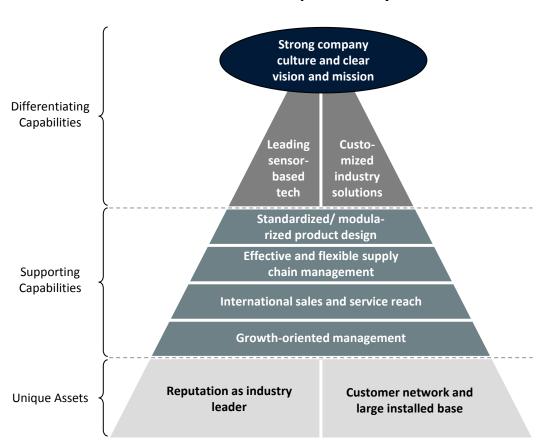




We have showed historically that we have been able to deliver profitable growth and this remains our ambition going forward



# ...BY CREATING A SUSTAINABLE COMPETITIVE ADVANTAGE BUILT ON CORE CAPABILITIES...

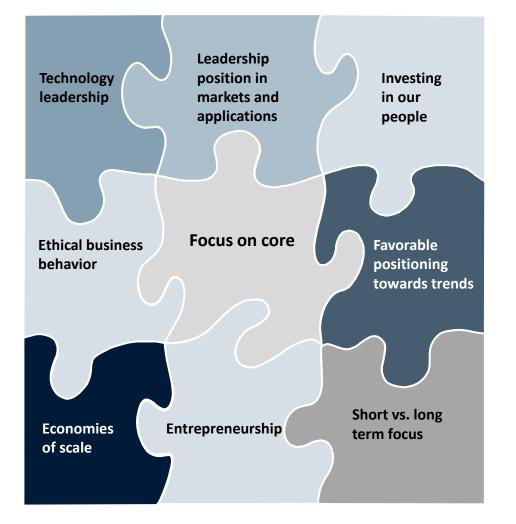


**TOMRA Capabilities System** 

SOURCE: Booz for TOMRA

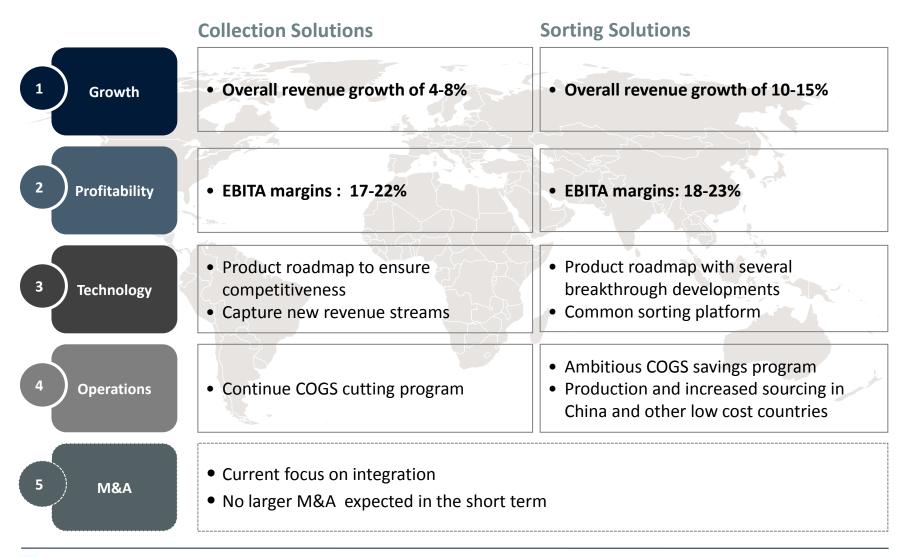


## ...IMPLEMENTED IN THE WAY WE RUN OUR BUSINESS

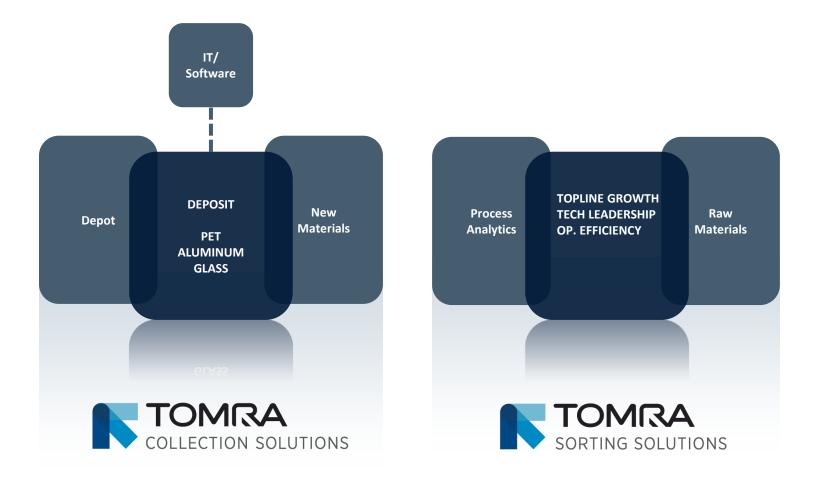




# AMBITIOUS TARGETS FOR GROWTH AND POSITIONING...



### ... TO BE EXECUTED WITHIN OUR STRATEGIC DIRECTION



# **OUR COMMON FUTURE**

Ultimately, the Resource Revolution goes beyond a single goal or a set of numbers

We all have a stake in getting results – it is a global challenge

## **TOMRA: USING THE POWER OF BUSINESS TO DO GOOD**













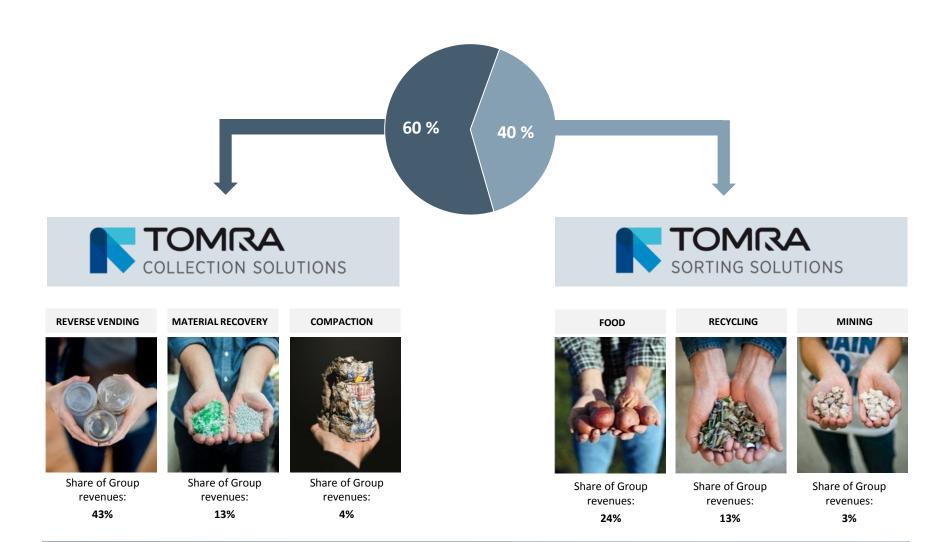


## **TOMRA Collection Solutions**





# TOMRA COLLECTION SOLUTIONS CONTRIBUTES 60% OF TOTAL GROUP REVENUES





# RETUR NTOSS VALUE



### THE GLOBAL BEVERAGE MARKET

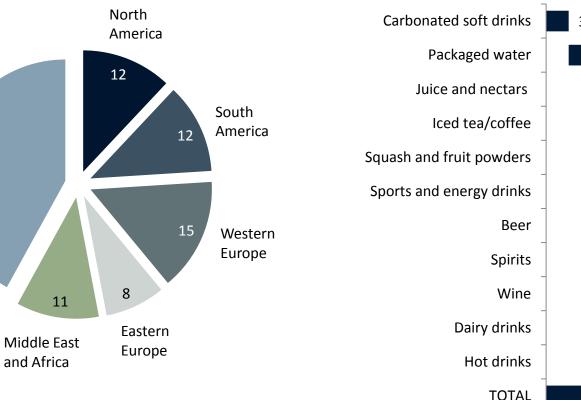
### Global beverage consumption

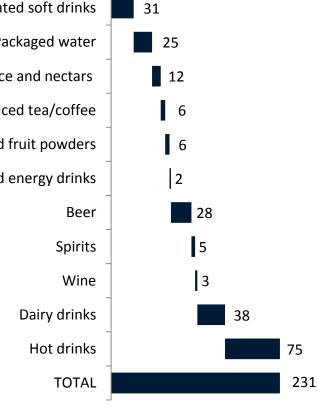
100% = ~1.6 trillion liters

Asia

42

### **Breakdown of per capita consumption** Liters per person per year (global average)



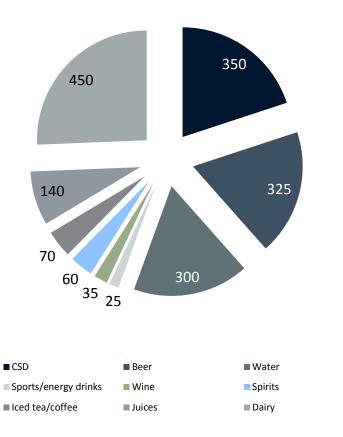




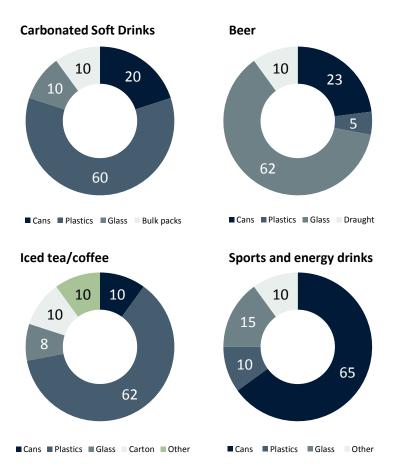
## THE GLOBAL BEVERAGE PACKAGING MARKET

#### Size of global packaging market

Billion units per category, 100% = ~1.8 trillion units



#### Packaging mix for key categories Percent



Source: REXAM consumer packaging report 2011/2012; TOMRA analysis



**ESTIMATES** 

## **RECYCLING RATES FOR BEVERAGE PACKAGING**

#### **Recycling rates for selected packaging categories**

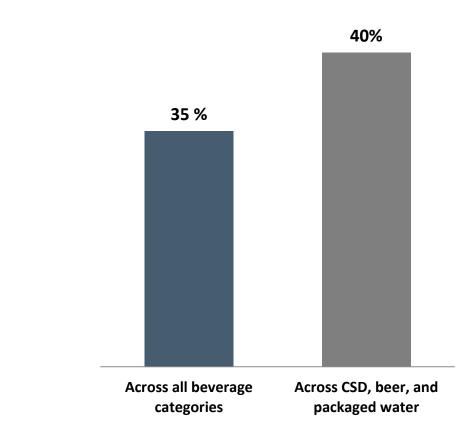


Globally: ~70% USA: 65% EU: 66% JPN: 93% Globally: ~35% USA: 29% EU: 48% JPN: 72%

Globally: ~35% USA: 35% EU: 68% JPN: 90%



Globally: ~15-20%? USA: 10-15%? EU: 37% India: 18%, China: 10%, Egypt: 13% **Estimated global UBC recycling rates** 

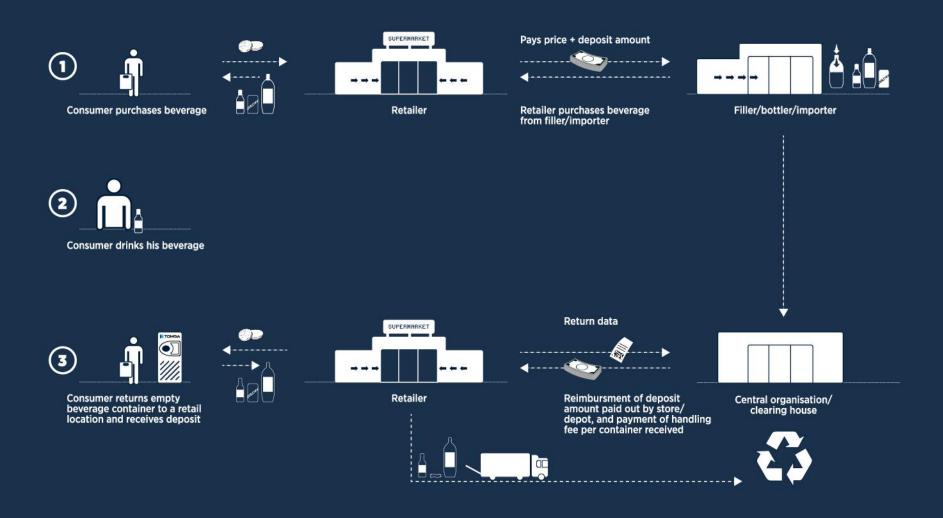


Source: Alcoa; Napcor; Aluminum Association/CMI; European Aluminum Association; TOMRA analysis

**ESTIMATES** 



### RECYCLING OF BEVERAGE PACKAGING IN A DEPOSIT SYSTEM



## **ELEMENTS OF A MODERN REVERSE VENDING SYSTEM**







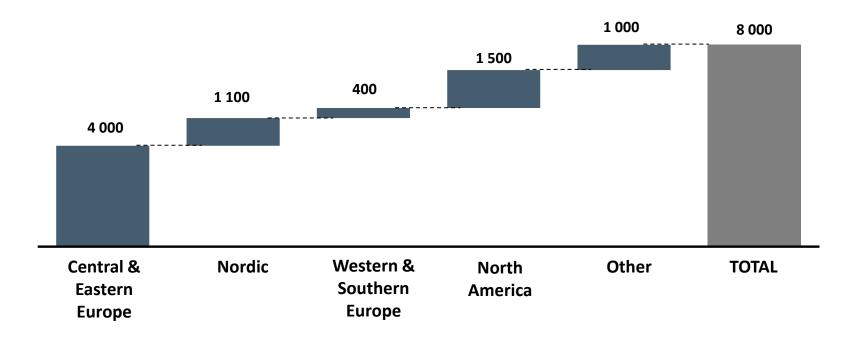
Down more than 1 hour 9

### **REVERSE VENDING ADVANTAGES**



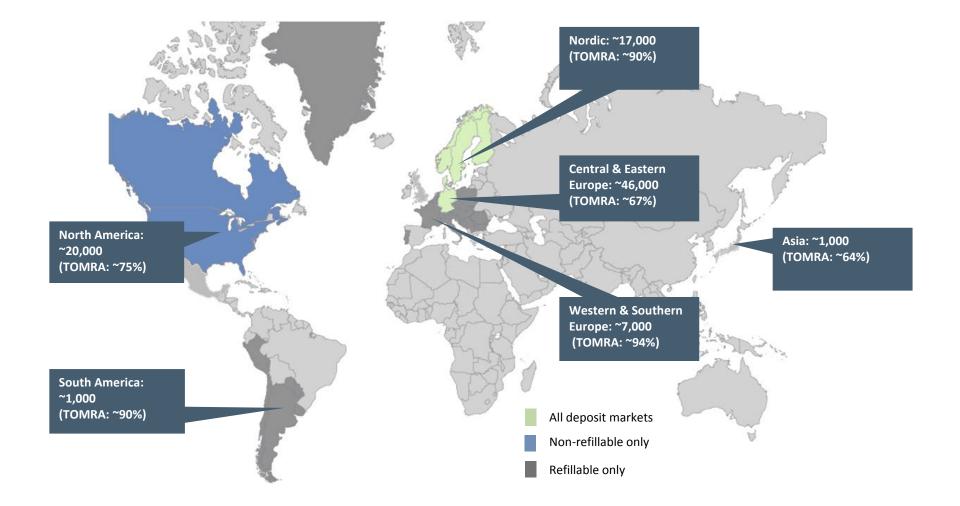
**TOMRA** 

Number of reverse vending machines (backrooms excluded) sold per region in 2012 Units





## GLOBAL INSTALLED BASE (ACTIVE SYSTEMS)

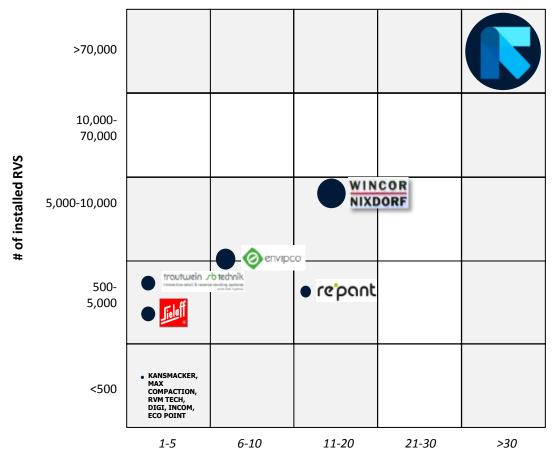


Source: Envipco 2011 prospectus; Repant annual reports; DPG database; company websites; TOMRA analysis

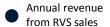
ESTIMATES



### COMPETITIVE LANDSCAPE



Number of RVS markets



Source: TOMRA estimates and analysis

ESTIMATES



### CURRENT MARKET DYNAMICS





**Defend and nurture core** deposit market business **Ensure continued relevance** 2 of deposit systems **Embrace new business** models **Expand scope of business** 

- Increase differentiation towards competition
- Further reduce the cost of reverse vending systems
- Increase scope of existing deposit markets
- Assist in developing new deposit markets

- Capture new volume by entering new segments
- Create new revenue streams from Software/IT

Target new material streams



### ENSURE SUFFICIENT DIFFERENTIATION BY DELIVERING ON PRODUCT ROADMAP AMBITIONS

### 2012



### 2015





## T-9: THE FIRST OF A NEW GENERATION OF MACHINES

- On 23<sup>rd</sup> September 2013, TOMRA presented the first machine of the **new** generation of machines to come
- T-9 features the first 360 degree recognition system applied in an RVM and a completely new industrial design
- The machine is faster, cleaner and takes all types of beverage containers
- The launch has been successful
  - Several machines already installed in core markets
  - Key product for replacement sale in e.g. Germany

TOMRA is setting the standard for reverse vending for the next decade

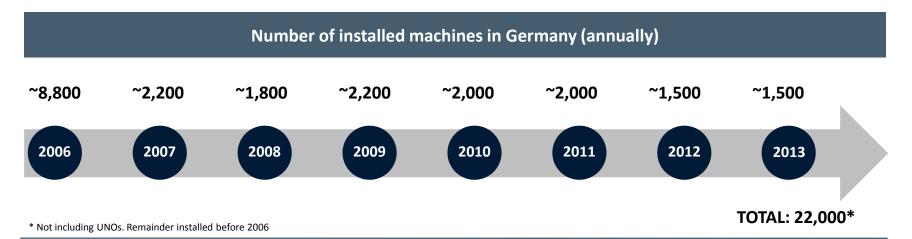






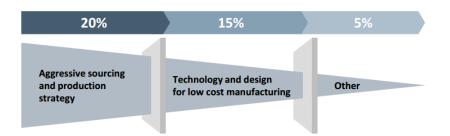
### THE GERMAN REPLACEMENT OPPORTUNITY







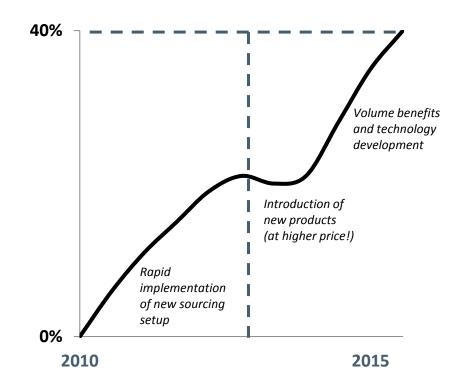
### COGS SAVINGS PROGRAM



Phases of COGS saving program

- Moving sourcing from high cost to low cost countries has been the major driver for the COGS savings to date
- Our new portfolio has been designed to allow an even higher degree of low cost country sourcing and to benefit from modern manufacturing processes
- In the early phase of a product's lifetime, COGS will be high due to small sourcing volumes and high cost of certain cutting-edge components

### Achieved and estimated savings Percent (of average portfolio cost)

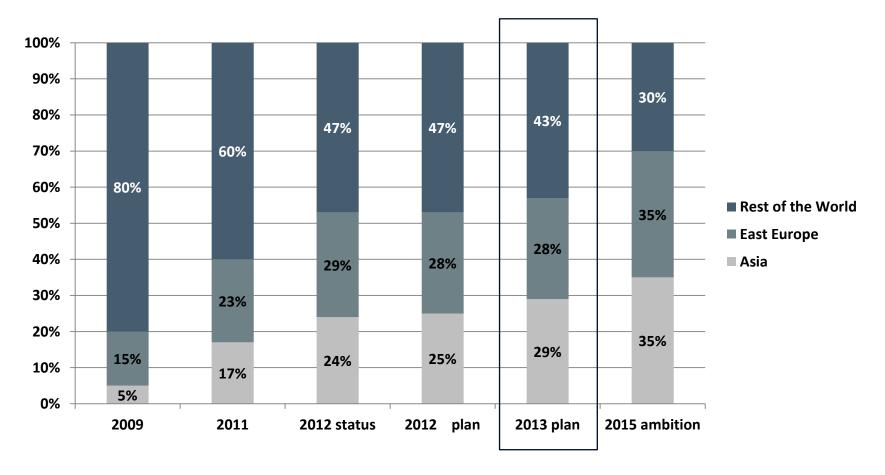


ILLUSTRATIVE



### **EXAMPLE: CHANGES IN SOURCING SETUP**

### COGS distribution by region (sourcing)



Source: TOMRA analysis



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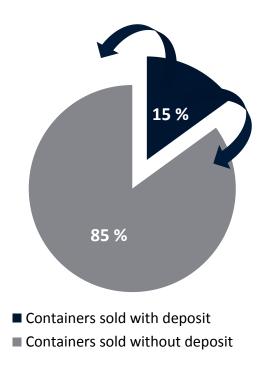
Target new material streams



# ENSURE CONTINUED RELEVANCE OF AUTOMATED DEPOSIT SYSTEMS

# Handling method for deposit containers Percent of total 40 % 60 % Handled with RVS Handled manually

#### Share of containers sold with deposit Percent of total



Source: TOMRA analysis

ILLUSTRATIVE



# INCREASE SCOPE OF EXISTING DEPOSIT MARKETS

# Beverage categories excluded from deposit systems, but suitable for RVMs







### **NEW DEPOSIT MARKETS**



TOMRA

**Defend and nurture core** deposit market business **Ensure continued relevance** 2 of deposit systems **Embrace new business** models **Expand scope of business** 

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Target new material streams



# INCREASE NUMBER OF CONTAINERS TOUCHED

#### Number of Reverse Vending Machines

Units

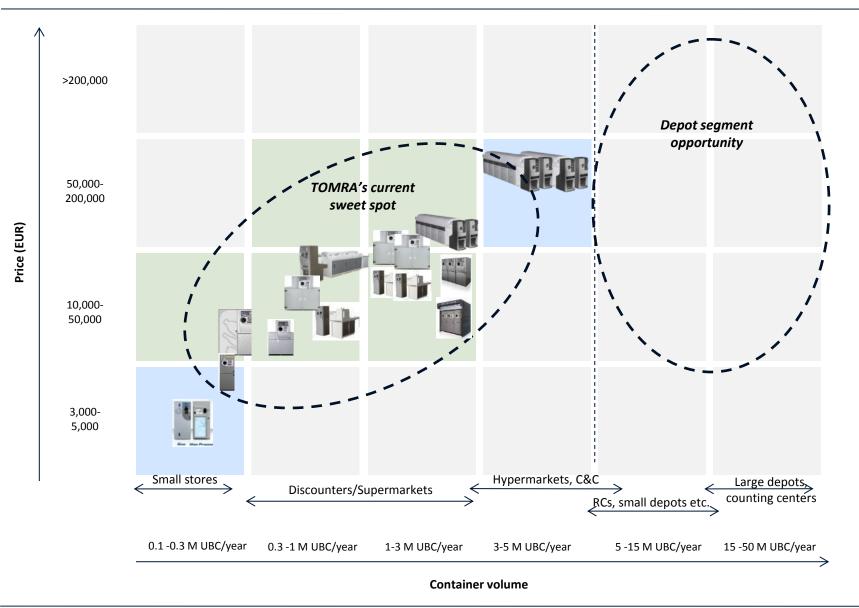
All beverage containers sold through RVMs	5 000	Some containers (asymmetrical, oversized,
All recycled containers through RVMs	2 000 000	cartons etc.) cannot be collected in traditional RVMs (TOMRA is now changing the game with our new T-9)
All beverage containers sold with deposit through RVMs	500 000	RVMs are competing against generic solutions such as curbside programs and igloos, even in markets where containers are sold with a deposit
RVMs deployed <b>today</b>	90 000	Still, there are opportunities to shift container volumes towards automated systems
TOMRA RVMs deployed <b>today</b>	70 000	

#### Source: TOMRA analysis

ESTIMATES



## ENTER NEW SEGMENTS



# CREATE NEW REVENUE STREAMS FROM SW/IT

**TOMRAPlus** 



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#### **TOMRA ReACT**





#### Integrating hardware and software into attractive and engaging combos



### **ENGAGE CONSUMERS**



Activity: Running





Log activity





Statistics, performance tracking





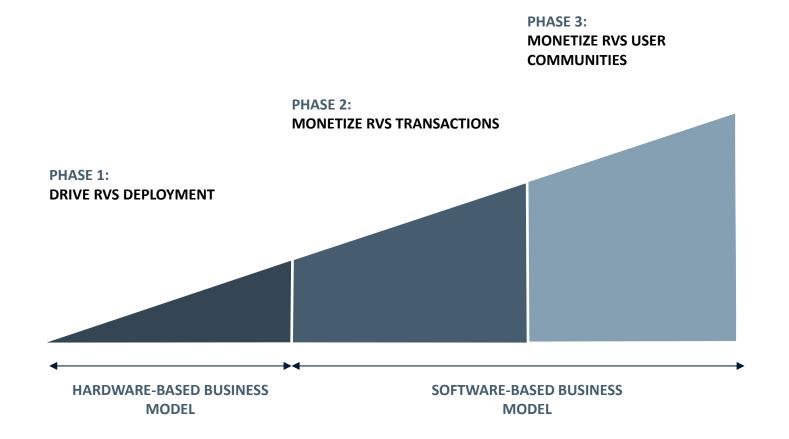
Share, compete, inspire!





## EVOLVING THE BUSINESS MODEL OVER TIME

#### Potential phases in monetizing the ReACT platform





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### TARGET NEW MATERIAL STREAMS















# WHY TOMRA? - POTENTIAL SYNERGIES





### ORDER OF PRIORITY

		2. MARKET DEVELOPMENT	4. DIVERSIFICATION			
	New	«Develop new deposit markets»	«Introduce solutions for new material streams»			
Markets		«Expand scope of existing deposit systems»				
Лаг						
2		1. MARKET PENETRATION	3. PRODUCT DEVELOPMENT			
	Existing	«Maintain market share by increasing	«Enter depot/C&C/RC segment»			
EX	differentiation and reducing COGS»	«Monetize IT/SW solutions»				
		Existing	New			
		Products				



# A SHIFT IN MINDSET – A SHIFT IN GROWTH PROFILE



From collection of used bottles and cans to smart collection of many kinds of materials





From hardware solutions only to integrated solutions with software as a key driver





From a "box pushing" business model to volume- and transaction-based models





From B2B only to a more balanced B2C/B2B focus where consumers are monetized



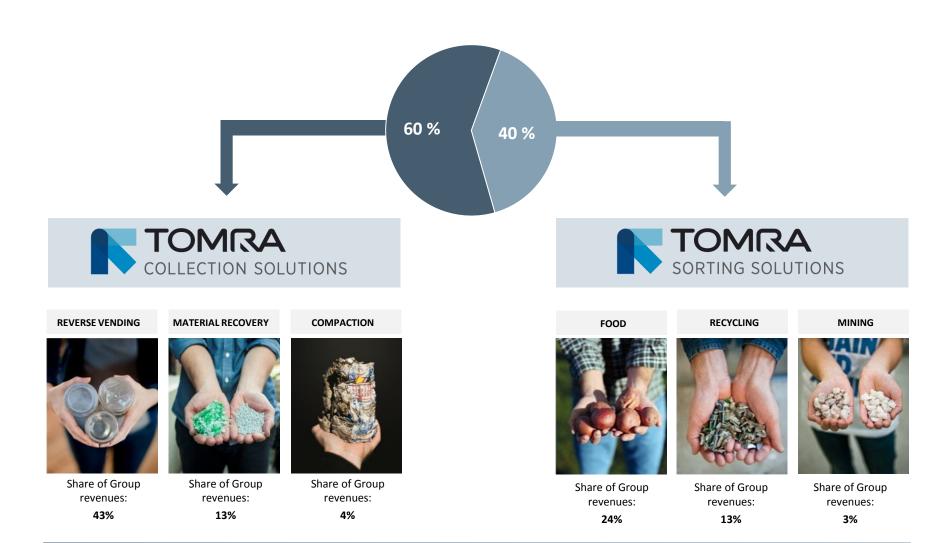
# **TOMRA Sorting Solutions**





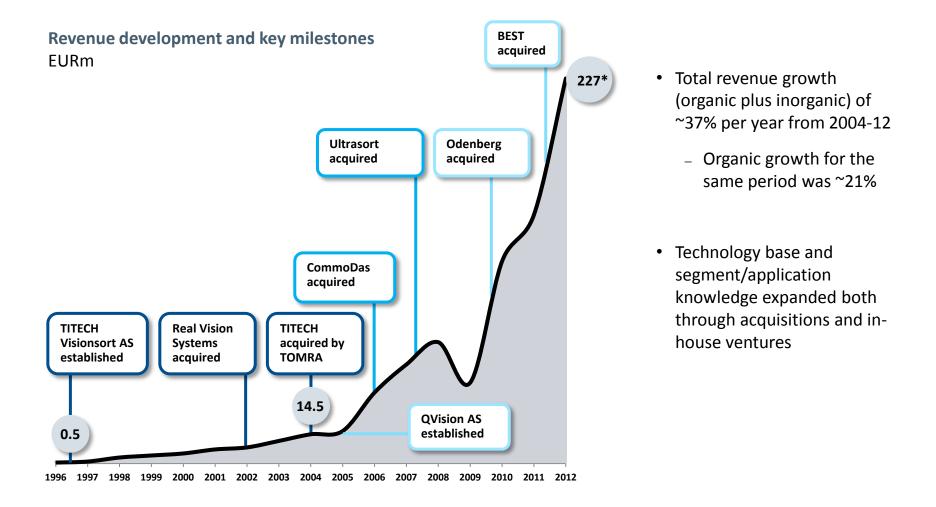


# TOMRA SORTING SOLUTIONS CONTRIBUTES ABOUT 40% OF TOTAL GROUP REVENUES





# STRONG REVENUE GROWTH SINCE INCEPTION IN 1996



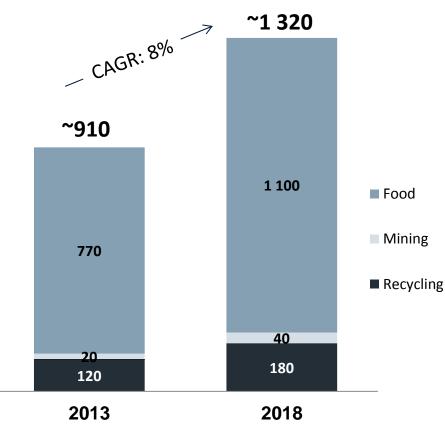
\* Includes BEST proforma for 2012 and excluding Chilling and Freezing unit divested Q1 2013



## MARKET SIZE AND POTENTIAL

#### Total annual market size

#### EUR million



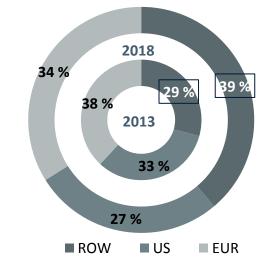
Source: TOMRA estimates and analysis

\* Market size for food includes peeling, meat/process analytics, virgin materials and tobacco.

#### **Market growth**

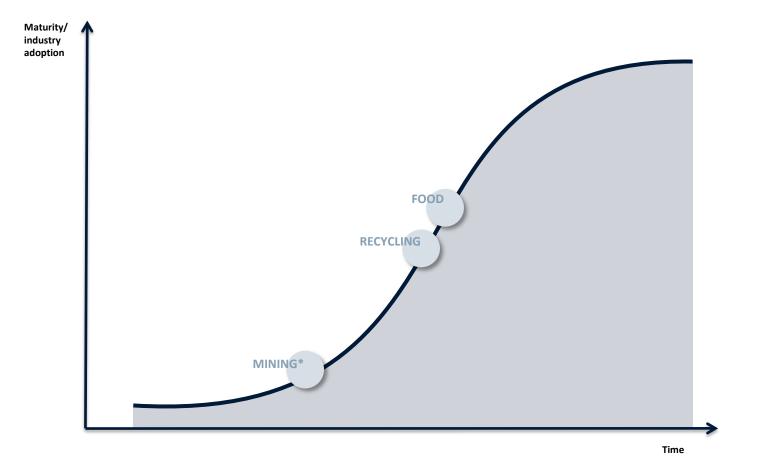
- Market expected to grow at rate of around 7-9% per year
- A large part of growth from unlocking of dormant potential – only possible by developing new applications and technologies
- Some growth in "old world", but faster growth in "new world"

# Expected development in geographical revenue contribution



#### **TOMRA**

### ADOPTION OF SENSOR-BASED SORTING AT DIFFERENT MATURITY LEVELS



\* In certain mining sub-segments, such as industrial minerals and diamonds, sensor-based sorting is a more mature technology



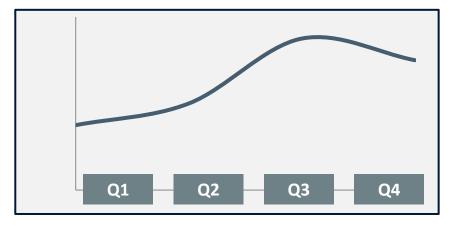
### SORTING VALUE PROPOSITION



**TOMRA** 

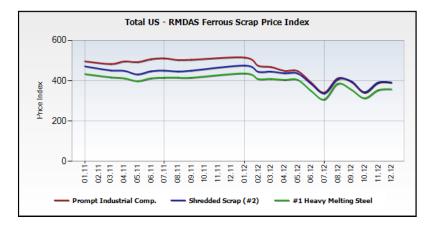
# SEASONALITY AND CYCLICALITY IN TOMRA SORTING

#### Illustration of annual revenue distribution



- Food: Higher activity towards the end of the year as clients want deliveries close to the harvesting season
- More activity in the second half as influenced by harvesting season in US and EU/Northern Hemisphere

#### The macro environment impacts sales



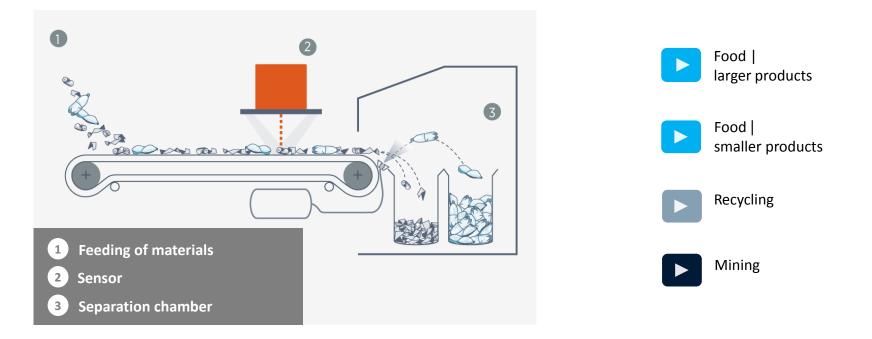
- Recycling: The more the prices either decline or fluctuate the more hesitant our clients will be to invest in equipment
  - Metal segment more cyclical than waste, but sensitivities also towards movements in plastic and paper prices
- Mining: Impacted by bigger miners CAPEX spend
- General: Lack of access to capital impacts all segments

Sources: www.recyclingtoday.com, RMDAS Ferrous scrap price index



## HOW DOES SENSOR BASED SEPARATION WORK?

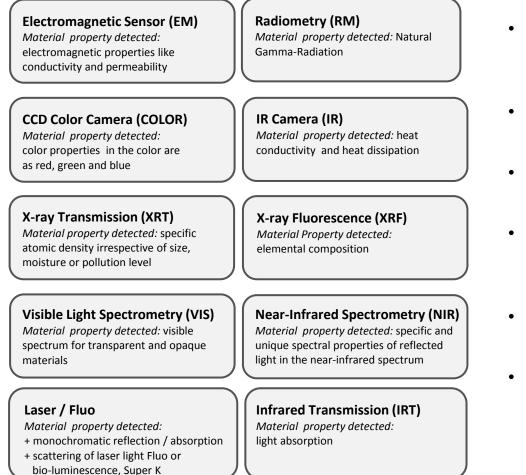
- High-tech sensors to identify objects
- **High speed processing** of information (material, shape, size, color, defect, damage and location of objects)
- Precise sorting by air jets or mechanical fingers
- Product **specific equipment design** often including multiple technologies to maximize sorting efficiency





# CUTTING-EDGE TECHNOLOGY DRIVEN BY SIGNIFICANT INVESTMENTS IN R&D...

#### **SENSOR PORTFOLIO**



- In-house R&D department with more than 20% of all employees
- 8% of revenue invested in R&D
- Developing own sensors
- Using own software and data processing tools
- Ownership of **80 patents**
- **Partnership with leading R&D institutions:** SINTEF, CTR, Fraunhofer ILT; universities like RWTH, Aachen and Brussels



### ... TO DEVELOP PRODUCTS SERVING A WIDE RANGE OF DETECTION PARAMETERS



Color Removal of discolorations in monoand mixed-color material



**Blemishes** Objects with spots or other (small) blemishes are removed



Defects Removal of visible and invisible small and substantial defects



Structure Removal of soft, molded or rotten food



Density Detection of density differences



Damage Broken, split and damaged objects are detected and removed



Shape & Size Sort on length, width, diameter, area, broken-piece recognition, ...



**Biometric Characteristics** 

Sort based on water content and removal of micotoxyn contaminations



#### **Foreign Material**

Removal of foreign material in a material stream, e.g. insects, worms, snails or plastics in food applications



Fluo

Based on the chlorophyll level present in produce defects are removed

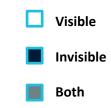


X-RAY

Analysis of objects based on their density and shape

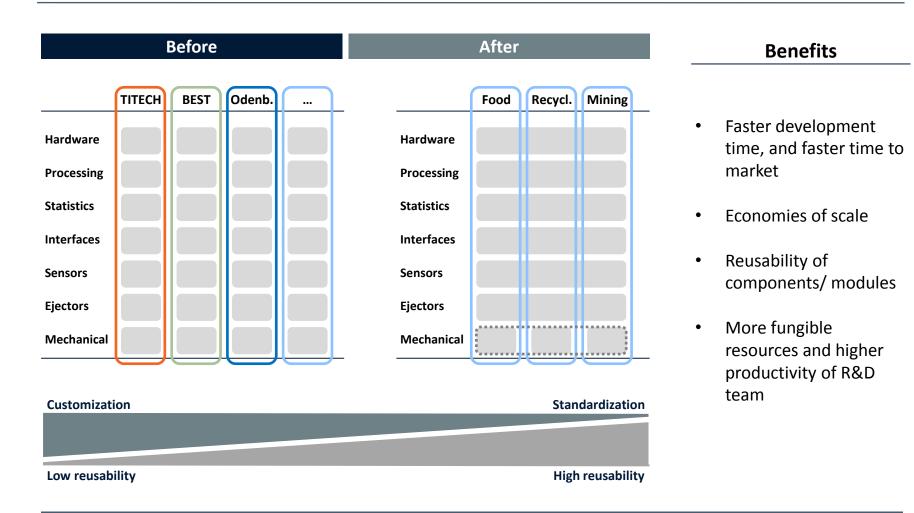


Detox Removal of produce contaminated with aflatoxin





### EFFICIENCY IN PRODUCT DEVELOPMENT: COMMON SORTING PLATFORM



#### Tapping into the synergy potential through streamlining our sorting platform

# CROSS UTILIZING OUR PORTFOLIO TECHNOLOGIES



#### TITECH NIR + ODENBERG platform

#### **Field Potato Sorter**

- The NIR technology allows efficient removal of rocks, dirt and rotten potatoes before the potatoes are stored
- The solution opens up sorting of unwashed potatoes in a way that previously was not possible



BEST LASER + TOMRA mining platform

#### **PRO Laser Duo**

- The LASER technology allows detection of quartz of all colors. This opens for sorting of quartz itself, and gold bearing quartz mineralization
- The solution is unique in the market and further underlines our technological leadership



#### **TITECH NIR + BEST LASER**

#### **Nimbus BSI**

- An NIR sensor has been added to the NIMBUS machine platform
- The new machine increases our competitiveness in the nuts segment

#### Several more projects on combining technologies into new products in the pipeline



# SORTING SOLUTIONS: OUR STRATEGY

	Food	Recycling	Mining			
	More than doubling of emerging markets revenue (but North America and Europe still 60% of business in 2018)					
1 Revenue growth of 10-15% over the period	New applications representing 25% of revenue in 2018	15 M€ growth in <b>new segments</b>	Significant <b>expansion of sales</b> network			
	New segments representing 10% of revenue in 2018	50% growth in service revenue	Succeed in <b>high volume</b> segments			
	Grow with existing customers and double service revenue					
Extend	Common sorting platform for all new product developments					
2 technology leadership	Cross-utilization of sensor portfolio, e.g. NIR/BSI in food and laser in mining					
	Extend current leadership in c	core NIR and laser technologies, and dev	elop new cutting edge sensors			
	Design changes, e	economies of scale and purchasing power	er to lower COGS			
3 Improve	Consolidation of manufacturing and sourcing; increased sourcing from low cost countries					
operational efficiency	Streamlining of organization and processes to take out synergies across business units					
	Target to <b>grow</b>	profits at several percentage points fast	er than revenue			



# YELD INTORS USAGE



### GROWTH IN GLOBAL FOOD DEMAND WILL SPUR INVESTMENTS IN AUTOMATION



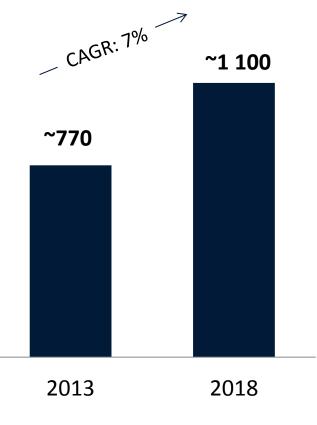
#### **Drivers and trends**

- Increasing food consumption in emerging markets, more mid-class consumers
- Industry focus on increased productivity and reducing costs through automation & quality control
- Higher quality demands from the consumers
- Stricter regulations from governments concerning food safety , health & traceability
- Shift towards packaged convenience food and fast food
- Risk of claims & recalls
  - Social media snowball effect (Twitter, Facebook, etc.)
- Globalization of brands and sourcing set up
- Scarcity & expense of (seasonal) manual labor
- Consolidation in the retail and processing sectors
- Adoption of technology in emerging markets

## MARKET SIZE FOOD SORTING\*

#### Total annual market size

EUR million

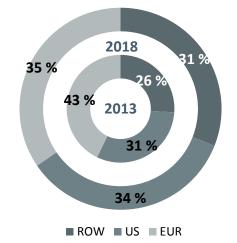


#### \* Market sizes shown include peeling, meat/process analytics, virgin materials and tobacco.

#### **Market growth**

- Total market for food sorting growing around 6-8% per year
- Approximately a third of total growth is dormant potential
  - only unlocked by development of new applications and technologies
- New world share grows but the two old world champions (Europe & Americas) remain strong

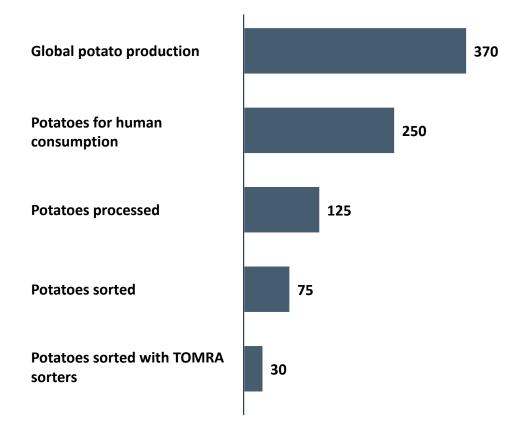
# Expected development in geographical revenue contribution



### AN INCREASING SHARE OF POTATOES ARE PROCESSED AND SORTED

#### Potato production per year

Million metric tons



Urbanization and growing incomes drive growth for packaged and processed potatoes

Demand for packaged and processed potatoes drive industrialization of the potato value chain, including sensor based sorters

In many applications, potatoes can be sorted multiple times, further increasing the potential

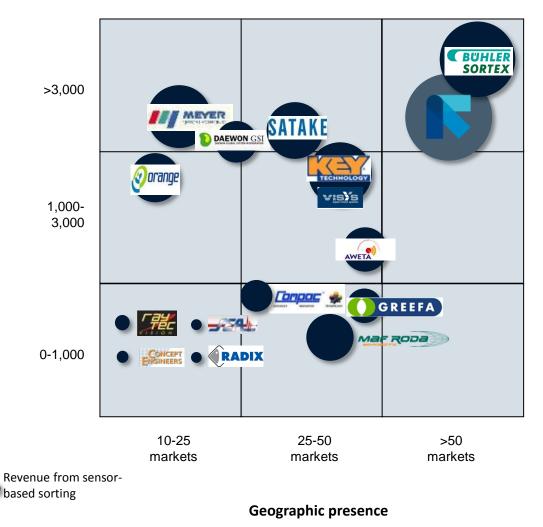
TOMRA now also offer solutions for seed potatoes, which are not for human consumption, thus further expanding the market for sorters

Source: TOMRA analysis

ESTIMATES



## FOOD COMPETITIVE LANDSCAPE



**TOMRA** competitive positioning

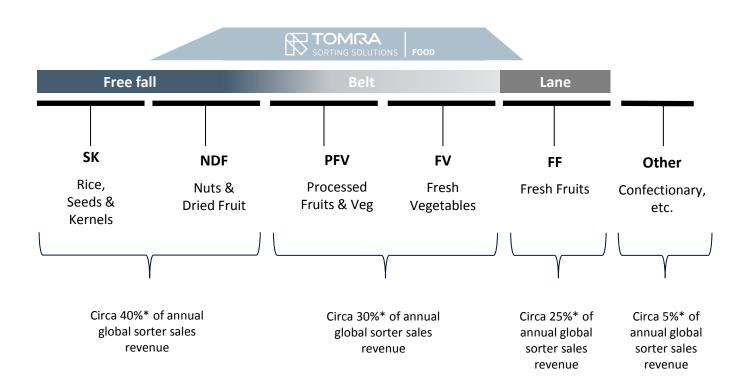
- Size (revenues)
- Widest range of applications (150+)
- Broadest technology base
- Geographic reach (~80 countries)
- Market share in targeted segments
- Transformative solutions (Q-Vision)
- Market share: 40-50% in markets served\*

Source: TOMRA estimates and analysis

\* Total Food sorting (also including rice and lane sorting): 12-15%



# TOMRA HAS THE BROADEST FOOTPRINT WITHIN THE FOOD SORTING UNIVERSE



\* TOMRA estimates

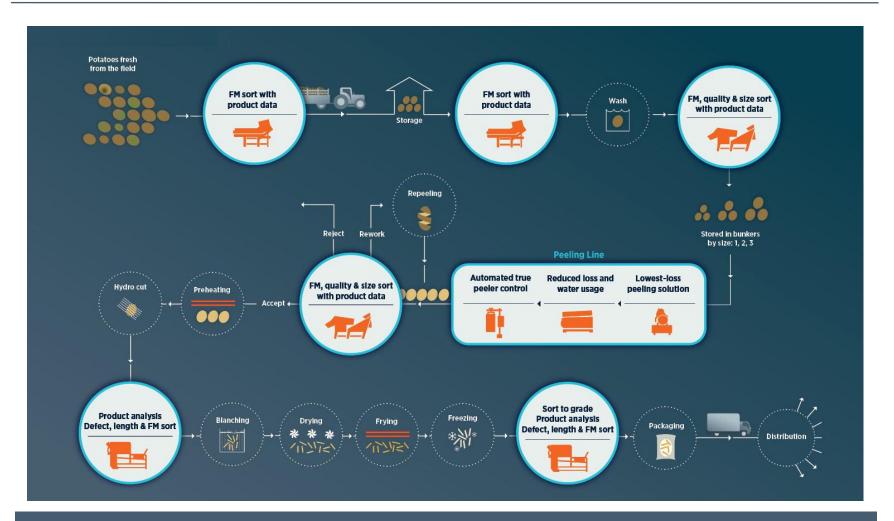


# OUR BROAD COVERAGE AND TECHNOLOGY BASE IS SETTING US APART

	DRIED FRUIT	NUTS	FRESH CUT	FRUIT	VEGETABLES	MEAT	POTATOES	SEAFOOD
FOOD	<ul> <li>Apricots</li> <li>Craisins</li> <li>Figs</li> <li>Prunes</li> <li>Raisins</li> </ul>	<ul> <li>Almonds</li> <li>Cashews</li> <li>Hazelnuts</li> <li>Macadamias</li> <li>Peanuts</li> <li>Pecans</li> <li>Pistachios</li> <li>Seeds</li> <li>Walnuts</li> </ul>	<ul> <li>Baby leaves</li> <li>Iceberg lettuce</li> <li>Spinach</li> <li>Spring mix</li> </ul>	<ul> <li>Apples</li> <li>Blackberries</li> <li>Blueberries</li> <li>Cherries</li> <li>Citrus</li> <li>Cranberries</li> <li>Peaches &amp; pears</li> <li>Raspberries</li> <li>Strawberries</li> <li>Tomatoes</li> </ul>	<ul> <li>Beans</li> <li>Beet</li> <li>Broccoli</li> <li>Carrots</li> <li>Corn</li> <li>Cucumbers</li> <li>IQF</li> <li>vegetables</li> <li>Jalapenos/ Peppers</li> <li>Onions</li> <li>Peas</li> <li>Pickles</li> </ul>	<ul> <li>Bacon bits</li> <li>Beef</li> <li>IQF meat</li> <li>Pork</li> <li>Pork rind</li> </ul>	<ul> <li>Washed</li> <li>French fries</li> <li>Unpeeled</li> <li>Peeled</li> <li>Potato chips</li> <li>Specialty products</li> <li>Sweet</li> </ul>	<ul> <li>Mussels</li> <li>Scallops</li> <li>Shrimps</li> </ul>
SENSOR TECHNOLOG	LASER NIR VIS X-RAY	LASER CAMERA X-RAY	LASER CAMERA	LASER CAMERA NIR VIS	LASER CAMERA NIR VIS	LASER CAMERA NIR	LASER CAMERA NIR VIS	LASER CAMERA NIR VIS X-RAY



# WE ARE UNIQUELY POSITIONED TO SERVE THE ENTIRE VALUE CHAIN WITH OUR PRODUCT PLATFORM



Sales of potato-related products account for about 25% of the sales in the food division



## **OUR CUSTOMERS**



# We are active in five continents and 80 markets

- 6 of the 10 largest, global food companies are our customers
- We have ~2,000 customers globally

#### **TSS Food provides sorting solutions for:**

- **Growers:** Harvester mounted tomato, onion and garlic sorters
  - ~5% of our customers
- Packers: Sorting of many different types of fruit and vegetables by color, size, shape, defect, blemish, damage or foreign objects
  - ~30% of our customers
- Processors: Sorting of processed potatoes (French fries, chips), fruits and vegetables
  - ~65% of our customers

# SPECIALTY PRODUCTS APPLICATIONS

	RAW MATERIALS	ТОВАССО		10 %	Peeling
APPLICATIONS	<ul> <li>Virgin plastics</li> <li>Synthetic rubber</li> <li>Virgin wood</li> </ul>	<ul> <li>Threshing lamina</li> <li>Threshing stems</li> <li>Oriental leaf</li> </ul>		15 %	Meat (Process Analytics)
	Specialty chemicals	<ul> <li>Primary lamina</li> <li>Primary stems</li> </ul>			Raw materials and tobacco
SENSOR TECHNOLOGY	LASER/FLUO CAMERA	LASER/FLUO CAMERA		75 %	Vegetables, fresh cut, processed lettuce and spinach
	HYPERSPECTRAL	HYPERSPECTRAL (Food Sorting)			Nuts
				Fruits	
	State 3				Dried Fruit and Seafood
	With a start of the				Potatoes
					Whole product sorting



# PAYBACK CALCULATION FOOD MACHINE\*

### From manual sorting of bell peppers to automation

- Investment: 2 machines EUR 660k
- Customer reduces manual labor by ~80%
- Reduction in input materials of ~30%
- Reduction of waste by 25%
- Delivering an increased output of ~25%

### Total annual benefits for the customer of EUR 600k

(Numbers in EURk)	Ye	ear
Customer return on investment (ROI)	1	2
Machine purchase cost	-660	
Replacement of manual labor	280	280
Yield improvement	150	150
Reduced claim reductions & recalls	50	50
Product on hold or rework	50	50
Increase in throughput	70	70
Total expected benefits	600	600
Recurring cost of machine	-72	-100
Net effect	-132	500
Accumulated ROI	-20 %	56 %



	Before	After
Manual labor (persons)	45	9
Input material (t/h)	16	11.5
Yield	55 %	75 %
Output (t/h)	6.5	8

NOTE: ROI and payback will vary greatly between customers, machines and applications

Calculations are only for illustrative purposes

Payback time for the client: Just over 1 year



# INTEGRATION IN FOOD PROGRESSING AS PLANNED



- Very good progress in integrating R&D and operations departments
- Creating a **common, wellfunctioning sales team** with an agreed ambitious joint strategy
- New products already launched benefiting from the wide in-house technology portfolio we have

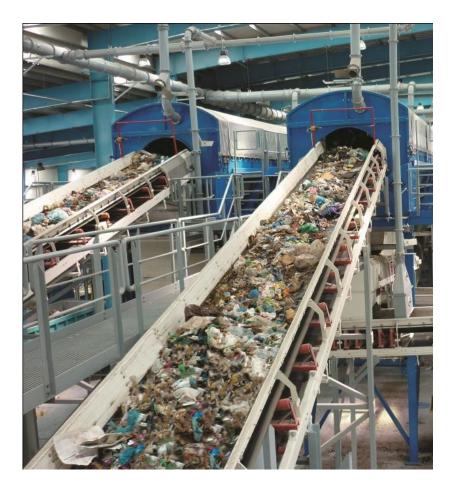
We are now the clear market and technology leader in food sorting



# ONCE INTO RS AND AGAN



# GLOBAL DRIVERS FOR THE RECYCLING SEGMENT



### **Drivers and trends**

- Consumption and industry production level increase
- Favorable changes in **regulatory framework** (DSD, WEEE, ELV, etc)
- Commodity price levels and fluctuation
- Access to financing
- Demand for recycled raw materials
- Increasing **labor costs** in emerging world drive adoption of automatic sorting technologies
- Some countries in Western Europe partly saturated
- Pre-sorted (plastics) still door opener in new markets
- Municipal Solid Waste (MSW) important in emerging countries
- More aggressive pricing from competitors affect market

# MARKET SIZE RECYCLING

### Total annual market size

EUR million

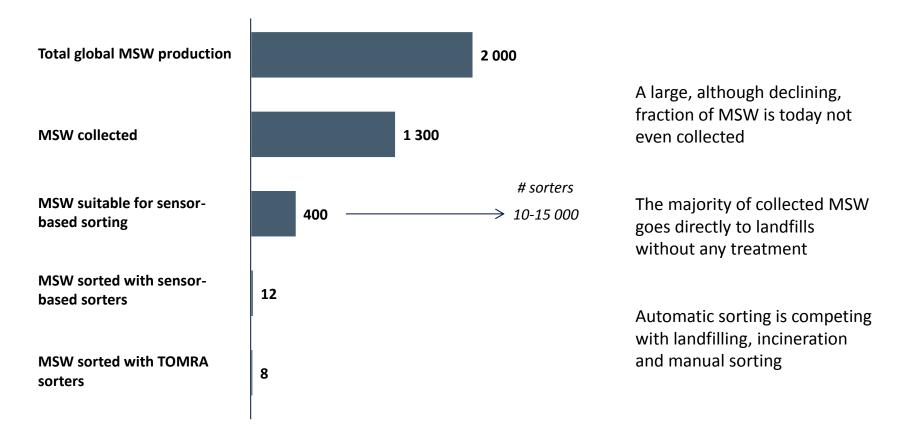


### **Market growth**

- Market expected to grow at around 7-9% per year, lower than previous expectations due to economic slowdown
- Demand in old world flattening, while new markets expected to drive growth
- Existing segments will serve as a base, whilst the majority of growth will come from:
  - New geographies
  - New applications
  - New products

# ONLY A SMALL FRACTION OF MSW IS CURRENTLY SORTED

### **Municipal solid waste production per year** Million metric tons

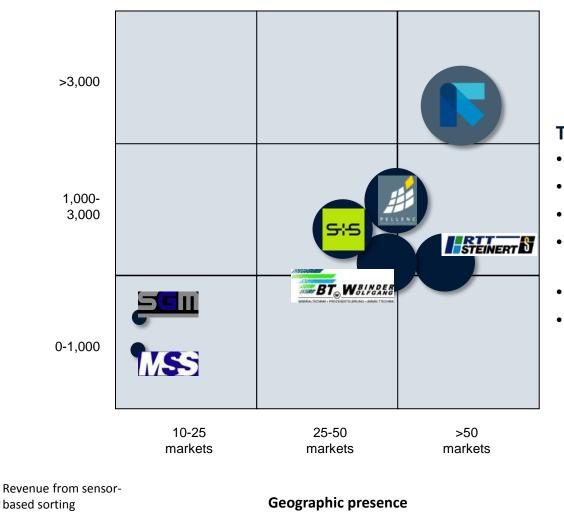


Source: TOMRA analysis

ESTIMATES



# **RECYCLING COMPETITIVE LANDSCAPE**



### **TOMRA** competitive positioning

- Largest installed base
- Highest revenues
- Broadest technology platform
  - Highest number of applications and markets served
- Leading brand
- Market share: 55-65%



Source: TOMRA estimates and analysis

# **RECYCLING: APPLICATIONS AND SENSOR TECHNOLOGY**



	HOUSEHOLD WASTE	PACKAGING	C & D	AUTOMOBILE SHREDDER	ELECTRONIC SCRAP
MATERIAL	<ul> <li>Hard plastics</li> <li>Plastic film</li> <li>Mixed paper</li> <li>RDF</li> <li>Metals</li> <li>Organics/ Biomass</li> </ul>	<ul> <li>Plastics</li> <li>Plastic film</li> <li>Cardboard</li> <li>Mixed paper</li> <li>Deinking paper</li> <li>Metal</li> </ul>	<ul> <li>Inert material</li> <li>Plastic film</li> <li>Metals</li> <li>Wood</li> <li>Paper &amp; Cardboard</li> <li>Plastics</li> </ul>	<ul> <li>NF metal</li> <li>Stainless steel</li> <li>Copper cables</li> <li>Copper</li> <li>Brass</li> <li>Aluminum</li> <li>Meatball sorting</li> </ul>	<ul> <li>Printed circuit boards</li> <li>Non-ferrous metal concentrates</li> <li>Cables</li> <li>Copper</li> <li>Brass</li> <li>Stainless steel</li> <li>Meatball sorting</li> </ul>
SENSOR TECHNOLOGY	NIR VIS XRT	NIR VIS EM	NIR VIS XRT EM	NIR VIS XRT EM COLOR XRF	XRT EM NIR COLOR XRF



Mixed paper

PE/PP flakes

Cleaned wood

Brass

**Copper Wire** 

# PAYBACK CALCULATION RECYCLING MACHINE

### **Background:**

- Waste management plant in UK
- Annual throughput of 130,000 tons per annum (two shifts of 8 hours at 90% availability)
- By installation of sorters, **30 manual workers can be** replaced
- Additional benefit through higher material recovery: €880K (assume 10% high recovery of recyclables)

### **Autosort**



(Numbers in EURk)	Year			
Customer return on investment (ROI)	1	2		
Machine purchase cost	-1 125			
Total expected benefits	960	960		
Recurring cost of machine	-93	-93		
Net effect	702	867		
Accumulated NPV	702	1 473		
Accumulated ROI	62 %	131 %		

NOTE: ROI and payback will vary greatly between customers, machines and applications

Calculations are only for illustrative purposes

Payback time for the client: Just over 1 year

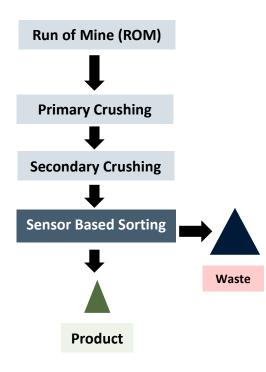


# SOURCE INTOR RESOURCE



# THE CONCEPT OF SENSOR-BASED SORTING IN MINING

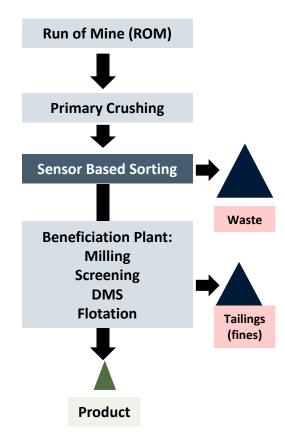
### Mining process: Industrial minerals





- 15% to 50% of the ROM can be rejected in an early stage of the process (application dependent)
- These low grade waste rocks don't need to be transported, crushed, grinded or further treated

### Mining process: Metal mining



**Potential new segment** 

**Current segment** 

# GLOBAL DRIVERS FOR THE MINING SEGMENT



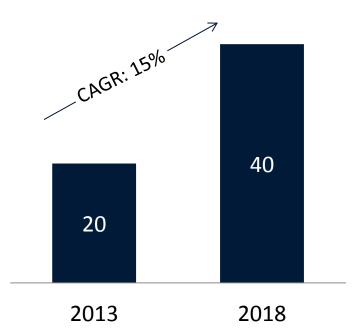
- Energy costs and water stress are major drivers
- **Demand of all commodities** is expected to grow with increased population and urbanization in the drivers seat
- Increasing labor costs in emerging world drive adoption of automatic sorting technologies
- Mining companies capex impact the investment sentiment
- Sensor based sorting is considered to be a future solution
  - Hardest competition comes from alternative well proven technologies



# MARKET SIZE MINING

### Total annual market size

EUR million



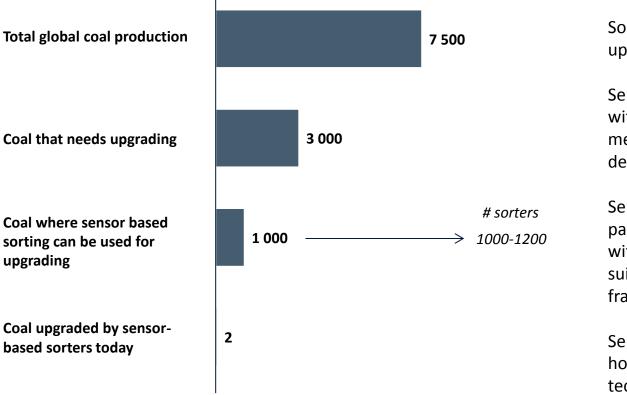
### Market growth

- Capex is forecasted to decline 2013 2014 (down 20% versus 2012)
- Expected to pick-up again during 2015
- Sensor based machines sales expected to grow at around 15% per year
  - Growth is however conditional on new applications and technologies being developed
- Sensor based sorting is still a technology to be accepted and growth in this niche has been limited in recent years

# LARGE POTENTIAL IN HIGH VOLUME SEGMENTS SUCH AS COAL

### Coal production per year

Million metric tons



Some coal does not need to be upgraded before use

Sensor-based sorting competes with other, established, methods for upgrading, such as dense media separation (DMS)

Sensor-based sorting is particularly suitable in areas with water scarcity, but is not suitable for the smallest fractions (<10mm)

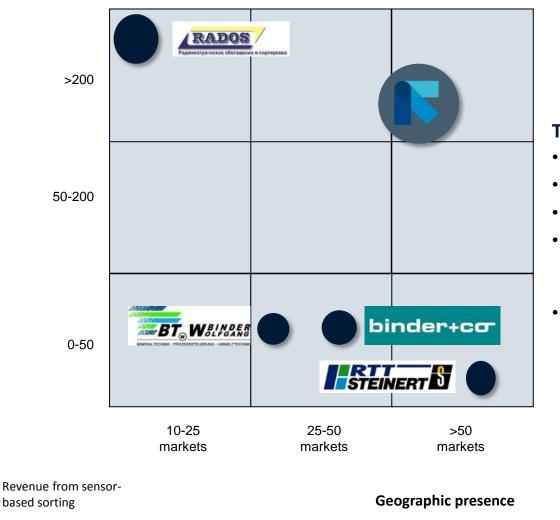
Sensor-based sorting is, however, not yet a proven technology in the coal industry

Source: TOMRA analysis

ESTIMATES



# MINING COMPETITIVE LANDSCAPE



### **TOMRA** competitive positioning

- Wide geographical coverage
- Broadest technology platform
- Leading brand
  - Pioneering in developing high volume sorter in corporation with Rio Tinto
- Market share: 40-50%

Source: TOMRA estimates and analysis



# MINING: APPLICATIONS AND SENSOR TECHNOLOGY



	INDUSTRIAL MINERALS	BASE & Fe METALS	FUEL/ ENERGY	PRECIOUS METALS	DIAMONDS & GEMS	METAL SLAG
COMMODITY	• Calcite	•Copper	• Coal	• Gold	• Diamonds	Stainless steel
COMMODITY	Quarts	• Zinc	• Uranium	• Platinum	<ul> <li>Tanzanite</li> </ul>	• Copper
	• Feldspar	• Nickel			Colored	• Chrome
	<ul> <li>Magnesite</li> </ul>	• Tungsten			gemstones	
	• Talcum	• Iron				
	• Dolomite	Manganese				
	• Salt	Chromite				
SENSOR	COLOR	XRT	XRT	XRT	COLOR	XRT
TECHNOLOGY	XRT	COLOR	RM	COLOR	XRT	XRF
	NIR	EM		XRF	XRF	EM
	XRF	NIR		NIR	NIR	
	Calcite	Copper	Coal	Gold	Diamonds	Ferro Silica Slag

# PAYBACK CALCULATION MINING MACHINE

### **Background:**

- Poly-metallic ore in Scandinavia
- Before installation the customer mines, transports and processes 700kt per year
- By installation of sorters, the amount ore to be treated can be reduced by 155kt per year
- As an additional benefit, 155kt capacity in the process plant is now available to treat high grade material

### **PRO Secondary/Tertiary XRT**



(Numbers in EURk)	Year			
Customer return on investment (ROI)	1	2		
Machine installation cost	-2 100			
Total expected benefits	3 650	3 650		
Recurring cost of machine	-650	-650		
Net effect	900	3 000		
Accumulated ROI	43 %	186 %		

NOTE: ROI and payback will vary greatly between customers, machines and applications

Calculations are only for illustrative purposes

### Payback within the first year of usage



# UPDATE ON THE RIO TINTO R&D PARTNERSHIP

### Background

- TOMRA and Rio Tinto agreed in Q1 2012 to form a 5 year strategic R&D partnership with the aim to develop commercial scale sorting systems for upgrading bulk minerals
- This partnership is focused on scaling up Rio Tinto's iron ore and copper sorting technologies IronX<sup>™</sup> and NuWave<sup>™</sup>

# RioTinto

Implementation of technologies is key



### Progress

- Target to develop a machine capable of sorting 1,000 tons per hour
  - Best current solution sorts 100 tons per hour
- Both parties are honoring the 2012-contract
- Due to confidentiality, TOMRA is prevented from disclose more info around this project at this stage

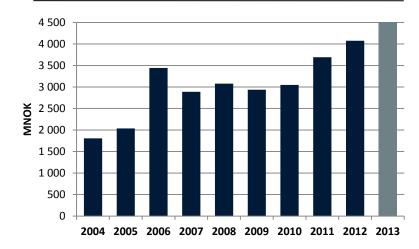


# **Financial development and targets**

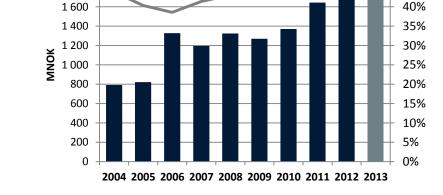




# **GROUP KEY FINANCIALS DEVELOPMENT**



### Revenues

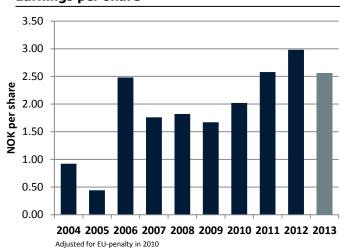


### **Gross Contribution and margin**

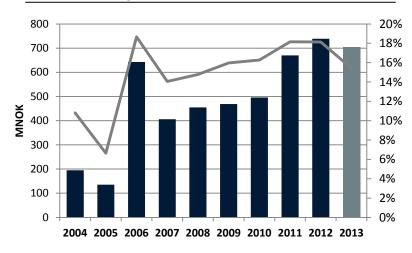
2 0 0 0

1 800





### EBITA and margin



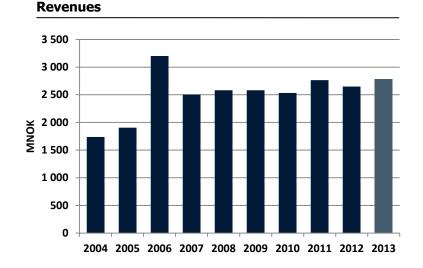
NOTE: 2013 figures comprise actual YTD September 13 + 4Q13 market consensus. Should not be read as guidance.



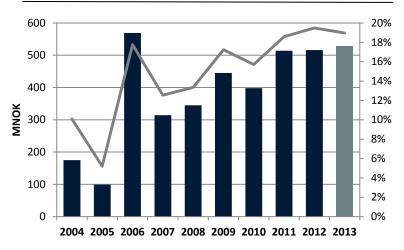
50%

45%

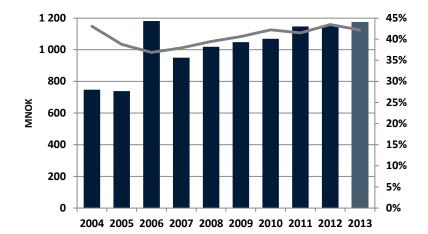
# **COLLECTION SOLUTIONS FINANCIALS 2004-2013**



### **EBITA** and margin



Collection includes Presona until divested in 2Q10 Included non-deposit

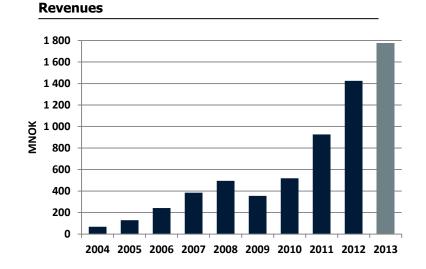


### **Gross Contribution and margin**

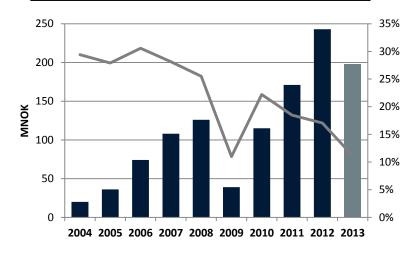
NOTE: 2013 figures comprise actual YTD September 13 + 4Q13 market consensus. Should not be read as guidance



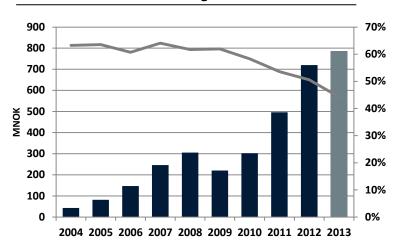
# SORTING SOLUTIONS FINANCIALS 2004-2013



**EBITA** and margin



### **Gross Contribution and margin**



NOTE: 2013 figures comprise actual YTD September 13 + 4Q13 market consensus. Should not be read as guidance



# 2010-2015 TARGETS: FROM 2010 TO DATE

### **Collection Technology - Financial Dashboard**



EBITA-margin 20-25%

### Financial Dashboard - Industrial Processing Technology



- TARGETS 2010 -2015
- Yearly organic growth 15% Acquisitions on top
- EBITA-margin 20-25%

### Financial Dashboard - Material Handling



- EBITA-margin >10%

**3** segments merged into 2 from 2012 targets adjusted accordingly

### COLLECTION SOLUTIONS -FINANCIAL DASHBOARD





The particular of the

**TARGETS 2010 - 2015** Yearly growth 4 – 8% 40% reduced COGS on new RVMs EBITA-margin 17%-22%

### FINANCIAL DASHBOARD -SORTING SOLUTIONS

EBITA-mergin 17%-22

TOMBA





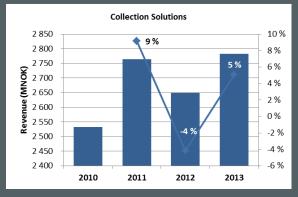
# HOW DID IT GO?

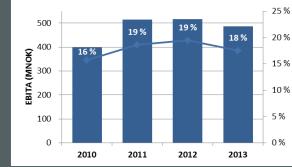


TARGETS 2010 -2015 Yearly growth 4 – 8% 40% reduced COGS on new RVMs EBITA-margin 17%-22%

TOMRA

### **Tomra Collection Solutions**

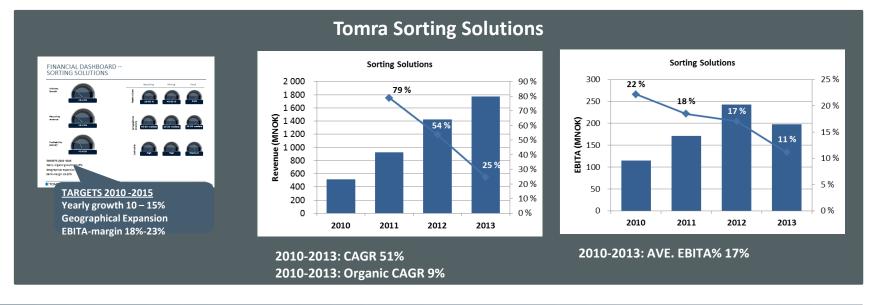




**Collection Solutions** 

### 2010-2013: CAGR 3%

### 2010-2013: AVE. EBITA%18

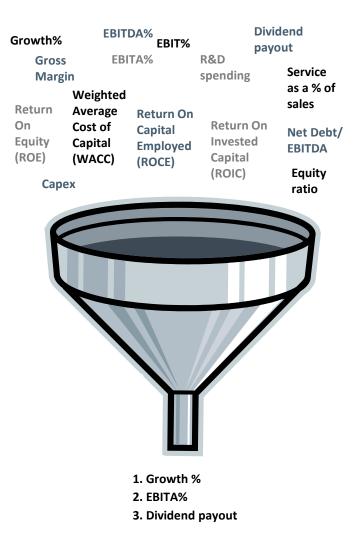


# CHOOSING TOMRA'S FINANCIAL TARGETS

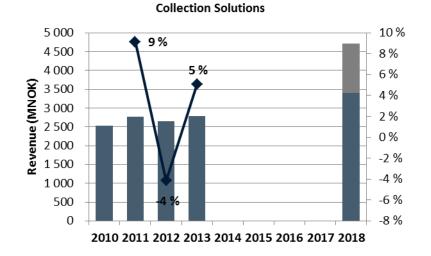
A jungle of financial parameters in corporate communication...

What is relevant for TOMRA?

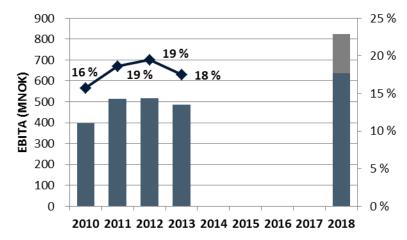
### Sticking to our 3 targets



# TARGETS COLLECTION SOLUTIONS



**Collection Solutions** 



### Growth targets:

**2010-2015 target:** 4-8%

2013-2018 target: 4-8% (unchanged)

**EBITA targets:** 

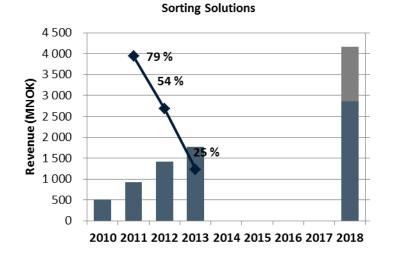
**2010-2015 target:** 17-22%

2013-2018 target: 17-22% (unchanged)

NOTE: 2013 figures comprise actual YTD September 13 + 4Q13 market consensus. Should not be read as guidance

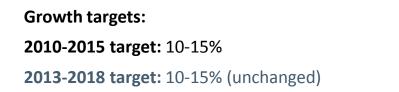


# TARGETS SORTING SOLUTIONS



25 % 800 22 % 700 20% 18 % 600 EBITA (MNOK) 17 % 500 15 % 400 11% 10 % 300 200 5% 100 0 0% 2010 2011 2012 2013 2014 2015 2016 2017 2018

Sorting Solutions



EBITA targets: 2010-2015 target: 18-23% 2013-2018 target: 18-23% (unchanged)

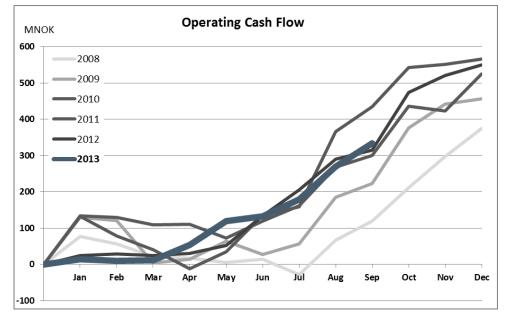
NOTE: 2013 figures comprise actual YTD September 13 + 4Q13 market consensus. Should not be read as guidance



# FINANCIAL HIGHLIGHTS BALANCE SHEET, CASH FLOW AND CAPITAL STRUCTURE

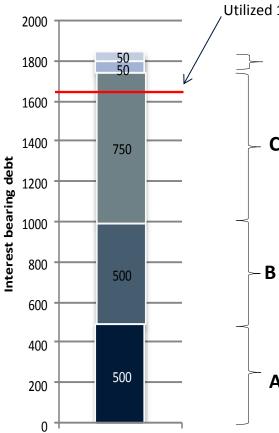
Cashflow (NOKm)	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	Total
From operations	540	550	566	525	457	375	526	346	243	381	4 509
From Investing	(201)	(209)	(150)	(229)	(163)	(182)	(143)	(140)	(65)	(136)	(1 617)
Free cashflow after tax (I)	339	341	416	297	294	193	383	207	177	245	2 892
Dividend	(185)	(155)	(89)	(81)	(75)	(70)	(65)	(61)	(321)	(54)	(1 155)
Share buy back	0	(5)	(4)	(4)	(50)	(202)	(408)	(422)	(211)	0	(1 306)
Dividend minorities	(25)	(34)	(28)	(30)	(15)	(21)	(13)	(17)	(12)	(13)	(208)
Paid back to owners (II)	(210)	(195)	(121)	(116)	(140)	(293)	(486)	(499)	(545)	(66)	(2 670)
From Acquisitions (III)	0	(829)	(407)	(79)	0	(144)	0	(113)	(111)	(260)	(1 943)
Net cashflow = (I) + (II) + (III)	129	(683)	(112)	102	154	(244)	(103)	(405)	(479)	(81)	(1 720)

Amounts in NOK million	31 Sept. 2013
ASSETS	5,724
Intangible non-current assets	2,451
Tangible non-current assets	591
Financial non-current assets	262
Inventory	902
Receivables	1,371
Cash and cash equivalents	147
LIABILITIES AND EQUITY	5,724
Equity	2,573
Minority interest	84
Interest bearing liabilities	1,654
Non-interest bearing liabilities	1,413



NOTE: 2013 figures comprise actual YTD September 13 + 4Q13 estimated to be equal to the average of the last four 4Qs. Should not be read as guidance





Utilized 1654 MNOK

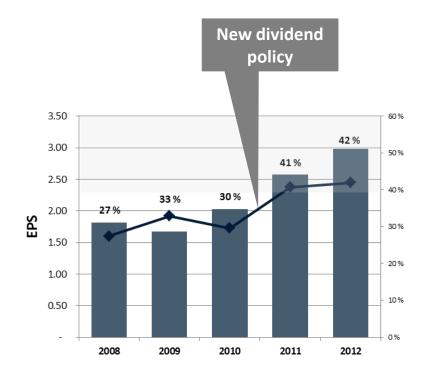
С

Α

### Committed and uncommitted credit lines

	Eksportfinans (A)	DNB (B)	DNB/SEB (C)
Туре	3 year term loan	5 year revolving credit facility	3 year revolving credit facility
Established	July 2011	January 2011	July 2012
Expire	July 2014	January 2016	July 2015
Amount	NOK 500 million	NOK 500 million	EUR 100 million (~NOK 750 million)
Repayment	Bullet	Bullet	Bullet
Interest	Floating, 3m	Floating, 1-12 m	Floating, 1-9 m
Margin	52 bps above NIBOR	60 - 90 bps above NIBOR/EURIBOR	110 – 165 above EURIBOR
Pledge	Negative	Negative	Negative
Covenants	30% Equity	30% Equity	30% Equity

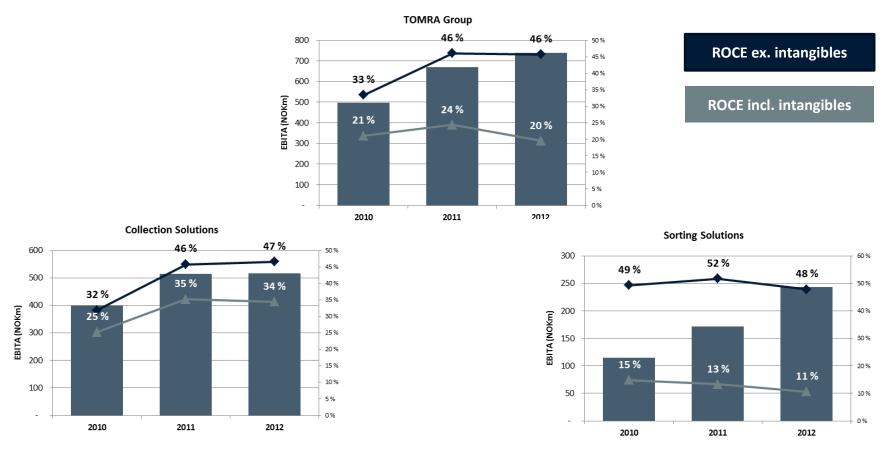
# 3. DIVIDEND PAYOUT (EU FINE ADJUSTED)



### **Dividend policy (Since AGM 2012):**

- Ambition is to distribute 40 60% of earnings per share.
- When deciding the annual dividend level, the Board of Directors will take into consideration:
  - Expected cash flow
  - Capital expenditure plans
  - Acquisitions
  - Financing requirements and appropriate financial flexibility

# A COMMENT ON RETURN ON CAPITAL EMPLOYED



### Capital employed is calculated as EBITA/Net assets:

- (Net assets = Total Assets Total debt, adjusted for cash, interest bearing debt, and tax items)
- 2010 ROCE for TCS is adjusted for EU fine

### TOMRA has delivered ROCE in the range 30-50% for the last three years



# **CURRENCY EXPOSURE**

### Revenues and expenses per currency;

### NOTE: Rounded figures

	EUR*	USD	ΝΟΚ	SEK	OTHER	TOTAL
Revenues	45 %	30 %	5 %	10 %	10 %	100 %
Expenses	45 %	25 %	10 %	10 %	10 %	100 %
EBITA	45%	65 %	- 30 %	10 %	10 %	100 %

\* EUR includes DKK

### 10% change in NOK towards other currencies will impact;

	Revenues	Expenses	EBITA
EUR*	4.5%	4.5%	4.5%
USD	3.0%	2.5%	6.5%
SEK	1.0%	1.0%	1.0%
OTHER	1.0%	1.0%	1.0%
ALL	9.5%	9.0%	13.0%

\* EUR includes DKK

### **HEDGING POLICY**

- TOMRA hedges B/S items that will have P/L impact on currency fluctuations
- TOMRA can hedge up to one year of future predicted cash flows. Gains and losses on these hedges are recorded in the finance line, not influencing EBITA

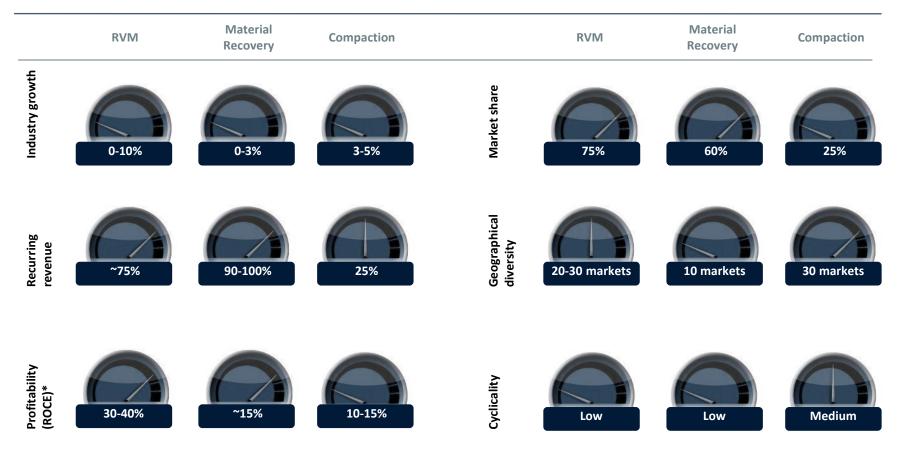


# Q&A





# COLLECTION SOLUTIONS – FINANCIAL DASHBOARD



### **TARGETS 2013 - 2018**

Yearly growth 4 – 8%

COGS cut program continues: 40% reduced COGS on new RVM machines from 2010 to 2015

EBITA-margin 17%-22%



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## FINANCIAL DASHBOARD – SORTING SOLUTIONS



### TARGETS 2013 - 2018

Yearly organic growth 10-15%

Geographical expansion

EBITA-margin 18-23%

(i) In markets served. Total food sorting (incl. rice and lane sorting\*) 12-15%



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